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INDEX.

Acid, *p*-bromobenzoic, The iodation of. (Hough), ... 449
Acid, *p*-bromo-*m*-nitrobenzoic, Salts of. (Hough), ... 449
Actinism, Is it a species of electrolysis? (Houston), ... 471
Alloys, new, and their engineering applications. (Garrison), ... 54, 111, 223
Anchoring beams in buildings, Goetz-Mitchell system, report on, ... 328
Arsenides, metallic, oxidation of the, by the electric current. (Frankel), . . . 451
Assaying gold bullion, the use of cadmium in. (Whitehead), ... 365

Beams in buildings, Goetz-Mitchell system of anchoring, report on, ... 328
Bevington's process of welding metals and spinning and shaping tubes, report on, 321
Birkinbine, John. The development of the pig iron manufacture in the United States, ... 337, 413
Boiler scale, composition of, and of a feed water from Galveston, Tex. (Koenig), 145

Book Notices:

Hawkins. Hand-book of calculations for engineers, etc., ... 78
Weisbach-Frazer. Tables for the determination of minerals, etc. 78
Grant. Odontics, etc., ... 315
Hall. Car lubrication, ... 317
Howe. Retaining walls for earth, ... 317
The Chronicle Company. The chronicle fire tables for 1891, ... 318
Sadtler. Hand-book of industrial organic chemistry, ... 394
Foley-Pray. The mechanical engineers' reference book, etc., ... 396
Calkins' steam engine indicator, ... 398
Muter. A short manual of analytical chemistry, ... 477
Grimshaw. Hints to power-users, ... 478
Knight. The patent franchise in the United States, ... 478
Birnbaum. Prof. R. Koch's method to cure tuberculosis, ... 479
Brooks, David, memoir of, ... 75
Bye-products of the coke industry, the utilization of. (Terne), ... 375

Cadmium, the use of, in assaying gold bullion. (Whitehead), ... 365
Car-wheel, forged, Vauclain's, report on, ... 11
Chemical Section, proceedings (see Franklin Institute).
Chestnut-wood tannin. (Trimble), ... 303
Coils, induction, induction of electric currents and. (Thomson), ... 81, 240

Coke industry, the utilization of the bye-products of the. (Terne), ... 375
Conflagrations in cities. (Woodbury), ... 129, 207
Connecting rods and couplers, new constructions of the force of inertia of, and constructions of the pressures on their pins. (Klein), ... 192, 288
Crew, Henry. Ewing's theory of induced magnetism, ... 148

Electric current, Oxidation of the metallic arsenides by the. (Frankel), . . . 451
currents, induction of, and induction coils. (Thomson), ... 81, 240
Electrical Section, proceedings (see FRANKLIN INSTITUTE).
Electrolysis, Is actinism a species of? (Houston), ... 471
Emery wheels, A comparison of fifteen American varieties of, ... 332
Engineering progress, Notes on. (Sellers), ... 30
Ewing's theory of induced magnetism. (Crew), ... 148
Eyesight: its care during infancy and youth. (Fox), ... 172

Fox, L. Webster. Eyesight: its care during infancy and youth, ... 172
Frankel, Lee K. Oxidation of the metallic arsenides by the electric current, . . 451

FRANKLIN INSTITUTE:
Chemical Section:
Proceedings of stated meetings, June to November, 1891, . . 66, 301, 355, 480
Committee on Science and the Arts:
Report on Vauclain's locomotive, ... 1
forged car wheel, ... 11
Wootten's locomotive, ... 161
Bevington's process of welding metals, etc., ... 321
Goetz-Mitchell system of anchoring beams in buildings, 328
Holmes' improved lubricant bearing, ... 401
Proceedings of stated meetings, June to November, 1891, . . 79, 320, 400, 480
Electrical Section:
Proceedings of stated meetings, June to November, 1891, . . 74, 148, 307, 390, 470
Programme of lectures, ... 398
Fuel gas and its applications. (Kitson), ... 424

Galveston harbor problem, The. (Haupt), ... 275
Garrison, F. Lynwood. New alloys and their engineering applications, 54, 111, 223
Gieseler, E. A. The range of tide in rivers and estuaries, ... 101
Gilman, F. The path of a projectile, ... 267, 391, 476
Goetz-Mitchell system of anchoring beams in buildings, Report on, ... 328

Haines, Reuben. On the percentage of iodine absorbed by lard oil, by the Hübl method, ... 67
Haupt, Lewis M. The Galveston harbor problem, ... 275
Heliochromy, Prof. Lippmann's. (Ives), ... 141
Holmes' lubricant bearing for machinery, Report on, ... 401
Hough, Oliver. I. The iodation of *p*-bromobenzoic acid, ... 449
II. Salts of *p*-bromo-*m*-nitrobenzoic acid, ... 449

Houston, Edwin J. Artificial rain-making, ... 308
Is actinism a species of electrolysis? 471
Hübl Method. On the percentage of iodine absorbed by lard oil. (Haines), . . 67

Induced magnetism, Ewing's theory of. (Crew), ... 148
Induction of electric currents and induction coils. (Thomson), ... 81, 240
Iron (pig), manufacture in the United States, development of the. (Birkinbine), ... 337, 413
Ives, F. E. Prof. Lippmann's heliochromy, ... 141

Kerr, Walter C. The steamloop, ... 241, 392
Kitson, Arthur. Fuel gas and its applications, ... 424
Klein, J. F. New constructions of the force of inertia of connecting rods and couplers, etc., ... 192, 288
Koenig, Geo. A. Composition of boiler scale and of a feed water, from Galveston, Tex., ... 145

Lard Oil. On the percentage of iodine, absorbed by the Hübl method. (Haines), 67
Lippmann's (Prof.) heliochromy. (Ives), ... 141
Locomotive, Vauclain's Compound, Report of Committee on Science and the Arts on, ... 1
Locomotive, Wootten's, ... 161
Lubricant bearing for machinery, Holmes' report on, ... 401

Magnetism, induced, Ewing's theory of. (Crew), ... 148
Mason, Wm. P. Notes on some cases of drinking water, ... 356
Meat preservative, a new ("preservaline"). (Terne), ... 370

Niagara Falls, utilization of the power of. (Sellers), ... 30

Obituary Notices:
David Brooks, ... 75
John J. Weaver, ... 158
Louis H. Spellier, ... 353
Oxidation of metallic arsenides by the electric current. (Frankel), ... 451

"Preservaline," a new preservative for meat. (Terne), ... 370
Projectile, the path of a. (Gilman), ... 267, 391, 476

Rain-making, artificial. (Houston), ... 308

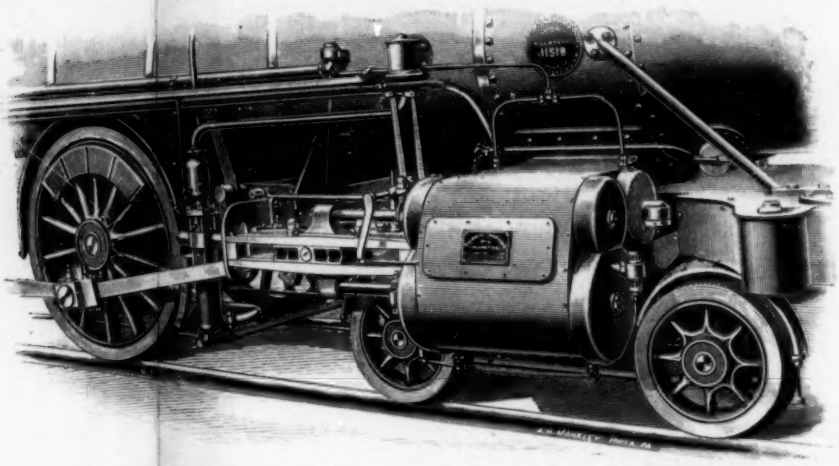
Science, applied, possibilities of. (Smith), ... 17
Sellers, Coleman. Report on the Holmes' lubricant bearing, ... 401
Sellers, Coleman. The utilization of the power of Niagara Falls and notes on engineering progress, ... 30
Smith, Oberlin. Possibilities of applied science, ... 17
Spinning and shaping metal tubes, and welding metals. Bevington's process, report on, ... 321

Spellier, Louis H., Memoir of, ... 353
State Weather Service. Announcement, ... 160
Steamloop, The. (Kerr), ... 241, 392

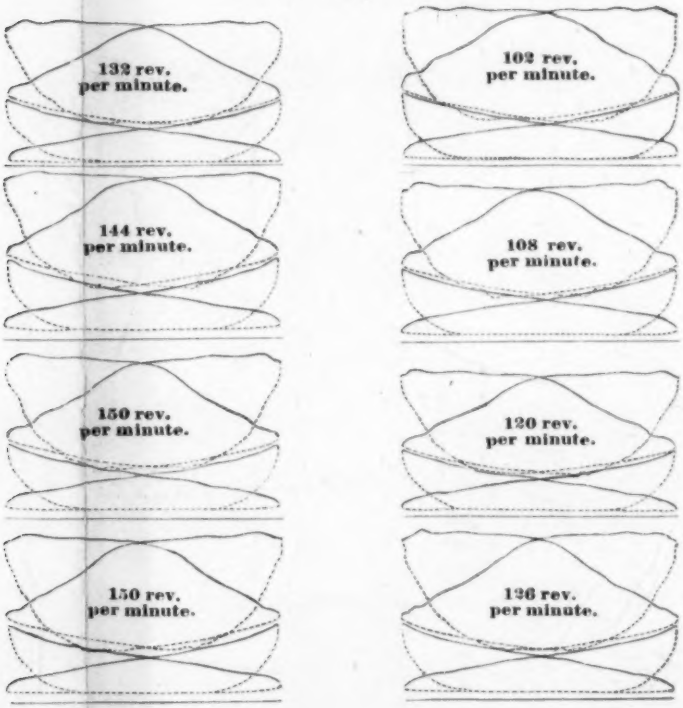
Tannin, Chestnut-wood. (Trimble), ... 303
Terne, Bruno. "Preservaline," a new preservative for meat, ... 370
The utilization of the bye-products of the coke industry, ... 375
Thompson, Elihu. Induction of electric currents and induction coils, . . . 81, 240
Tide, range of, in rivers and estuaries. (Gieseler), ... 101
Trimble, Henry. Chestnut-wood tannin, ... 303

Vauclain's compound locomotive, Report on, ... 1
Vauclain's forged car wheel, Report on, ... 11

Water, drinking, Notes on some cases of. (Mason), ... 356
Weather Service, Pennsylvania State. Announcement, ... 160
Weaver, John J., Memoir of, ... 158
Welding and spinning metals, Bevington's process, Report on, ... 321
Whitehead, Cabell. The use of cadmium in assaying gold bullion, ... 365
Woodbury, C. J. H. Conflagrations in cities, ... 129, 207
Wootten's locomotive, Report on, ... 161

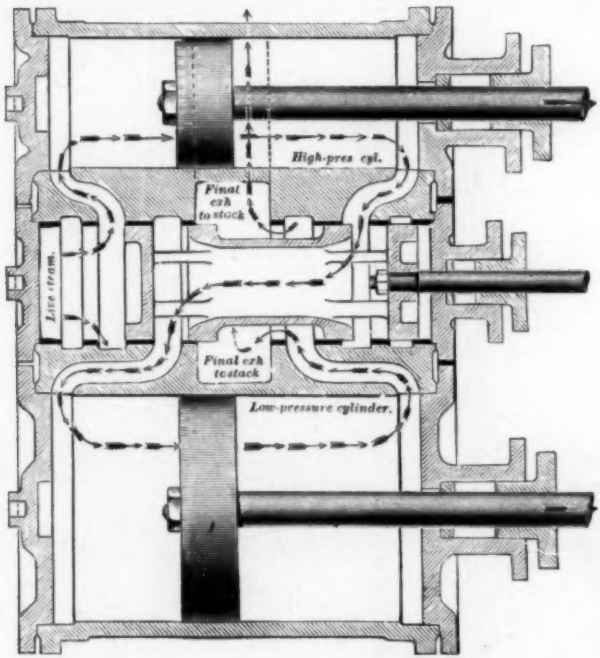


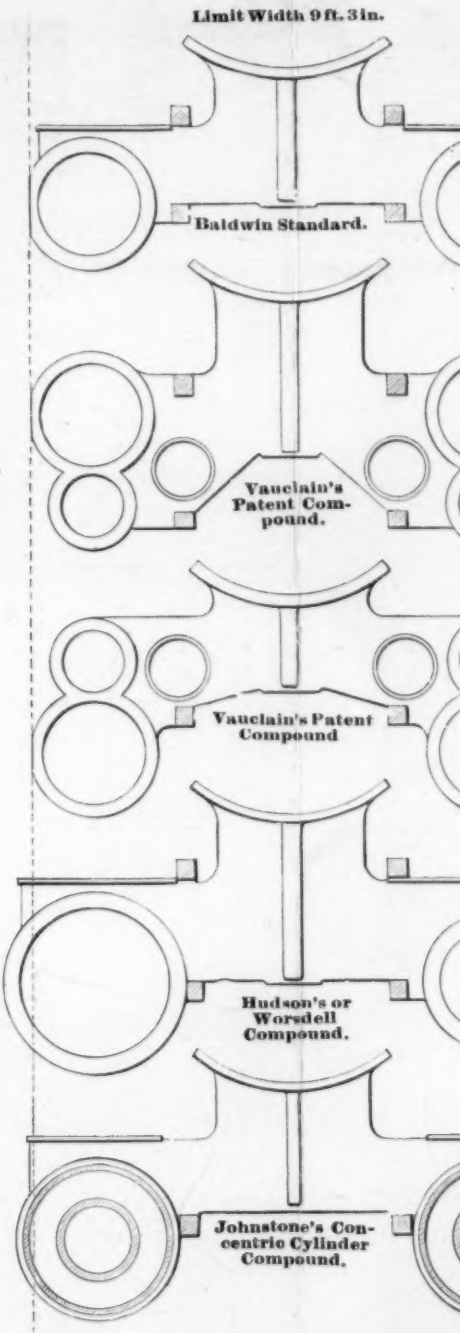
Indicator Diagrams Taken on Philadelphia & Reading Railroad, May 28, 1891.

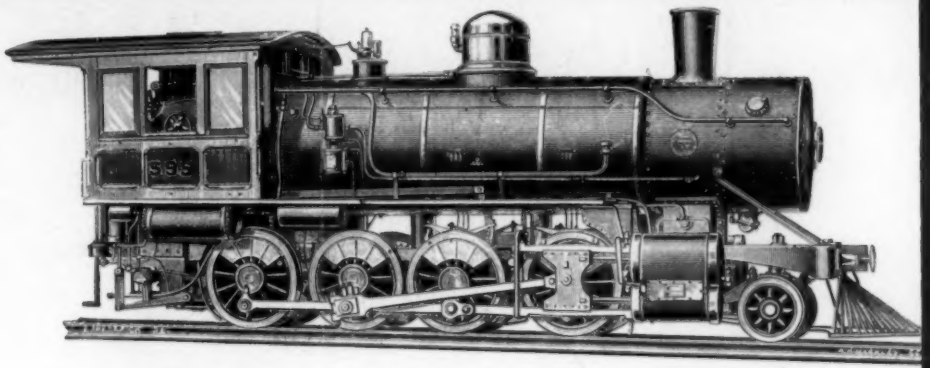

132 rev. per minute.
102 rev. per minute.
144 rev. per minute.
108 rev. per minute.
150 rev. per minute.
120 rev. per minute.
150 rev. per minute.
126 rev. per minute.

VAUCLAIN'S COMPOUND LOCOMOTIVE ENGINE.

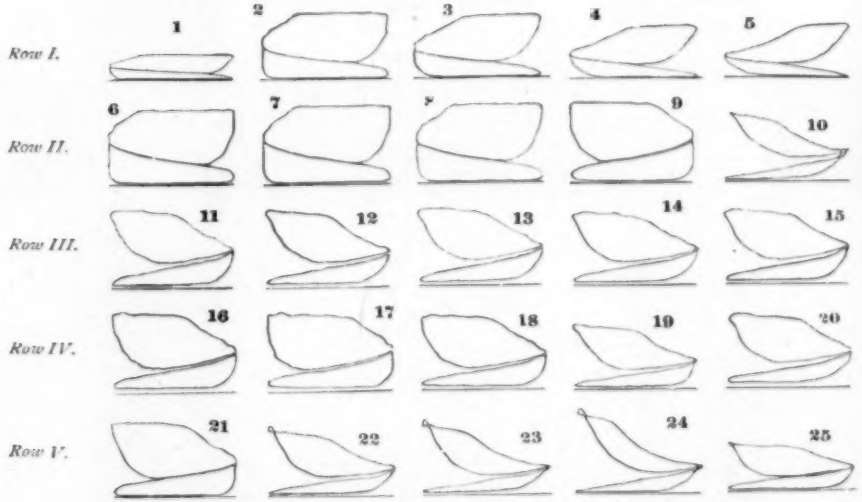
Diagram Showing Compound Cylinder and Piston Slide Valve.




Limit Width 9 ft. 3 in.
Baldwin Standard.
Vauclain's Patent Compound.
Vauclain's Patent Compound
Hudson's or Worsdell Compound.
Johnstone's Concentric Cylinder Compound.



Indicator Diagrams taken upon Lehigh Valley and Pennsylvania Railroad, May 13 to 21, 1891.



Row I.—Philadelphia and Reading R. R., Preliminary Trial, May 10, 1891.

No. 1 speed not noted.
Nos. 2 and 3. . . . . 60 revolutions per minute or 9·11 miles per hour.
No. 4, ... 84 " " 12·74 " "
" 5. . . . . 72 " " 10·92 " "

Row II.—Lehigh Valley R. R., Mountain Grade, May 14, 1891.

No. 6, ... 54 revolutions per minute or 8·19 miles per hour.
" 7, ... 60 " " 9·11 " "
" 8, ... 66 " " 10·01 " "
" 9, ... 90 " " 13·65 " "
" 10, ... 150 " " 22·75 " "

Row III.—Pennsylvania R. R., Philadelphia to Harrisburg, May 17, 1891.

No. 11, ... 126 revolutions per minute or 19·11 miles per hour.
" 12, ... 132 " " 20·02 " "
" 13, ... 156 " " 23·66 " "
" 14, ... 162 " " 24·57 " "
" 15, ... 162 " " 24·57 " "

Row IV.—Pennsylvania R. R., Harrisburg to Altoona, May 18, 1891.

No. 16, ... 102 revolutions per minute or 15·47 miles per hour.
" 17, ... 108 " " 16 38 " "
" 18, ... 132 " " 20·02 " "
" 19, ... 138 " " 20·95 " "
" 20, ... 180 " " 27·30 " "

Row V.—Pennsylvania R. R., Altoona to Harrisburg, May 20, 1891, taken by Test Department of P. R. R.

Nos. 21 and 22 speed not noted.
No. 23, ... 250 revolutions per minute or 37·85 miles per hour.
Nos. 24 and 25 speed not noted.